



Helping You Live Healthier Every Day

FACTSHEET FACTSHEET FACTSHEET FACTSHEET FACTSHEET FACTSHEET FACTSHEET FACTSHEET

OFFICE OF PUBLIC HEALTH • Center for Health Policy, Information & Promotion

Bioterrorism for Medical Professionals

FAQ's - Medical Facts About Pneumonic Plague

CLINICAL FEATURES

- **Pneumonic plague:** fever, chills, cough and difficulty breathing; rapid shock and death if not treated early

ETIOLOGIC AGENT

- *Yersinia pestis* - bacillus

INCIDENCE

- In the U.S., 1 to 40 cases reported annually (avg = 13 cases) by western states, 1971-1995
- Worldwide, 2861 cases reported by 10 countries to WHO in 1995

SEQUELAE

- Rare, consequences of disseminated intravascular coagulation, lung damage
- Mortality 50-90% if untreated; 15% when diagnosed and treated

TRANSMISSION

- Flea-borne, from infected rodents to humans
- Direct contact with infected tissues or fluids from handling sick or dead animals
- Respiratory droplets from cats and humans with pneumonic plague

RESERVOIRS

- Primarily wild rodents in U.S. (especially rock squirrels, ground squirrels, prairie dogs, other burrowing rodents)
- Commensal rats may be important elsewhere

RISK GROUPS

- In the U.S., persons exposed to rodent fleas, wild rodents, or other susceptible animals in enzootic areas of western states
- Most cases occur in southwestern states of NM, AZ, CO, and in CA
- Highest rates in Native Americans, especially Navajos; other risk groups: hunters; veterinarians and pet owners handling infected cats; campers or hikers entering areas with outbreaks of animal plague

SURVEILLANCE

- National Notifiable Disease Surveillance System (NNDSS) for animal plague surveillance, for reports of human cases, and laboratory testing of fleas, animal tissues and serum specimens, and serosurveys of carnivores.

- CDC, Fort Collins, is a WHO Collaborating Center for Reference and Research on Plague Control, and reports all human plague cases in the U.S. to WHO

RESEARCH

- Ecology-based prevention and control strategies
- Improved diagnostic reagents and methods
- Development of potential vaccine candidates
- Risk factor identification using landscape ecology and epidemiology

Links

General Information

<http://www.cdc.gov/ncidod/dvbid/plague/info.htm>

Questions and Answers

<http://www.cdc.gov/ncidod/dvbid/plague/qa.htm>

Images

<http://www.cdc.gov/ncidod/dvbid/plague/pics.htm>

The Bacterium

<http://www.cdc.gov/ncidod/dvbid/plague/bacterium.htm>

Natural History

<http://www.cdc.gov/ncidod/dvbid/plague/history.htm>

Diagnosis

<http://www.cdc.gov/ncidod/dvbid/plague/diagnosis.htm>

Epidemiology

<http://www.cdc.gov/ncidod/dvbid/plague/epi.htm>

Prevention and Control

<http://www.cdc.gov/ncidod/dvbid/plague/prevent.htm>

Scientific Literature

<http://www.cdc.gov/ncidod/dvbid/plague/bibliography.htm>